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ORIGINAL ARTICLES.

DISCUSSION ON DR. DERRICK T. VAIL'S PAPER ON "OPTIC NEURITIS RESULTING FROM INTRA-NASAL DISEASES."

DR. J. O. STILLSON, Indianapolis.—I think this is a very important paper, and it is certainly worthy of our serious consideration, because it opens up the question of the relation of the two sides of the fundus, as between the diseases of the eye and the diseases of the nose. We all know that we owe a certain amount of regard to each other in our different fields of labor; the eye class is usually attended by men who limit their studies to certain fields of observation where they are capable of doing the most good. Of course, an oculist is busy with his line of work and would be more liable to deficiencies in regard to the nose and other parts of the body. We can not cover the whole field. We can not spend our whole time on the anatomy of the entire human body, and the public do not expect it of us. Consultations never hurt and they often help. I think the benefit of counsel is the patient's due, and I think those who refuse to call counsel lose more than they make. If a man is going to limit his work and observation, and says he needs nothing but his own little bailiwick, he will find himself a small doctor. You take adenoids in relation to

phlyctenulæ, inflammations of the lacrymal duct—and I might go on and enumerate a number of diseases where the eye symptom is simply a result. In other words, it is a secondary disease, and the primary exciting cause is the nose. Here is a case in point: We all remember that we used to hear of cases of optic neuritis *ex causa incognita*—a learned name for ignorance. I remember having seen certain cases of optic neuritis on one side, and these were cases of *ex causa incognita*. About four years ago this was brought to my mind by a case I had similar to that mentioned by the Doctor, where a young lady was suffering from an optic neuritis, as plain as it could be seen with the ophthalmoscope, and no known responsible cause whatever. We bothered along with that case for months, and finally had to take up the nose, and not until the operations in the nose were instituted was there any relief. I had a case at my office yesterday of optic neuritis with intra-nasal disease, where the lady had been under the care of a gentleman in Indianapolis of fairly good attainments, who had paid no attention to the nose until he told the lady she would lose the sight of the eye, and he would begin treatment of the nose. You say: Why don't you send your cases to a rhinologist? It is not everybody who is going to have two specialists on the same case, and you ought to know something more than the retina. You ought to know the orbit; you ought to know the sinuses, the nose, and you ought to be able to furnish the remedy. And thanks are due to the oculist for bringing this fact before the profession, which was so ably done a few years ago by Dr. Holmes, and to his article we owe a great deal of thanks in putting us on the right track. His admirable article was a revelation to me; it was so graphic and so plain and so beautiful that it struck me like a flood of light. I think there is a middle ground. I do not think we should take upon ourselves that we are the only ones in it, but that we should recognize each other; and, therefore, I heartily endorse a society of this kind where the two kindred specialties are brought side by side and where we can study our cases together. I have come to believe that a man can be a very poor oculist indeed if he knows nothing about the nose. For years I refused to take these nose cases, because I thought I had enough to do and there were plenty of others to do these

things; but the force of practice drove me into the necessity of looking into the nose, and since I have been observing these cases in the vault of the nose I have had success that I did not have before. I commend the paper and think it deserves our consideration.

Dr. A. Alt, St. Louis.—I would like to ask Dr. Holmes whether such nasal trouble always causes a one-sided optic neuritis, or whether obscure cases of one-sided optic nerve atrophy may also be due to this same cause. I do not remember that I have seen any cases like the ones reported. The close relation between the nose and the optic nerve was, however, brought home to me by the case of a man who had had an operation performed on the turbinate, and in a few hours afterward was perfectly blind on that side. Of course, we all know that cases of one-sided blindness may occur from a great many causes, and perhaps we must blame nose affections for these cases more than I, at least, thought. I have under my care now a young man who, on account of a one-sided dimness, went to an oculist and was given glasses, but instead of getting relief, went blind in a few days in one eye. He had his nose examined at my recommendation, but nothing abnormal was found. It was one of the cases for which we have no explanation; I think it must have been a vascular disease. I have given him iodide of potassium, and the vision is now about $^{7}/_{200}$ in a small field.

Dr. Oscar Dodd, Chicago.—I had a case of sphenoidal suppuration about a year ago, which, like the last case mentioned by Dr. Holmes, came to an autopsy, and found that there had been necrosis of the bone, breaking through, so that he died from meningitis; still, no symptoms of eye trouble presented until the meningitis developed. I examined him very carefully for eye trouble, as I suspected that sphenoidal suppuration was the cause, although he came to me with a mastoiditis, for which I operated. Later, serious symptoms developed from the sphenoidal trouble. I was surprised on looking up the literature on the subject to find so many men, in describing these cases, do not mention the eye symptoms, while others give them as the prominent ones. Schaefer, of Bremen, in reporting about seventy-five cases, says he has never seen eye trouble in any of the cases, although Knapp, of New

York, and Hardy, of Chicago, report cases where the eye symptoms were the first noticed. It is rather surprising that the optic nerve should not have been affected in a case where it was separated from the pus cavity, as it was in this case, by a thin wall, and was surrounded with purulent exudate at the time of the autopsy.

Dr. C. R. Holmes, Cincinnati.—I am and have been for several years very much interested in this subject, and have devoted considerable time to the study of the accessory cavities. My case, kindly referred to by the speaker, was a typical one, and caused me to look at this subject from a different standpoint. I beg to refer to it just for a moment. It was at that time the first case of its kind I have been able to find on record, where the diagnosis was made in time to restore vision.

The patient had suffered for several months, receiving treatment for malaria and other affections. Pain would compel him to sit, holding his temple and occiput on the affected side for hours, and I have observed that one of the symptoms of disease in the sphenoid is pain in the temple on the same side, and can be produced by putting a hook into the cavity and touching the side of the sphenoid cavity. I believe this to be an important symptom. I relieved this man after there was total loss of perception of light. Drs. Zenner and Ransohoff saw the case in consultation, but neither would give a positive diagnosis. Patient could not see a bright electric light before the affected eye. The vessels were reduced in calibre, and disc very pale. I removed the middle turbinated, opened the sphenoid freely, which was followed by the evacuation of pus from the cavity, and in a few days he began to improve and sight was restored, excepting for a faint central scotoma, due to the fact that the papulo-macular fibers were compressed too long. Had I known then what I know now, and operated early, I am positive even this would not have occurred. I had occasion to examine him recently, and found the sphenoid cavity perfectly healthy.

Another case belonging to the subject under discussion, I saw with the late Dr. Thorner, who had removed a polypus from the region of the middle turbinated body. Two days after, the patient developed a violent optic neuritis, followed by

complete atrophy of the affected eye. We must not go to the extreme, however, and expect to find eye complications with every case of sphenoid trouble, because there is a very large percentage who have had these troubles for ten, twenty and more years, and the eyes have never been involved. Others, again, only have asthenopic symptoms.

One of the most typical of this class I ever saw, and where the patient died from hæmorrhage, never had any optic neuritis. He came for glasses. His vision was perfect with the proper correcting lenses, but there was marked failure of accommodation. I obtained a post-mortem, at which Dr. Vail assisted. The necrosis was so extensive that the entire roof of the sphenoid cavity had been destroyed, and one could pass the finger into the sphenoid from above, while the anterior wall of the cavity was intact.

Dr. Vail, closing the discussion.—I have nothing to add to what has already been brought out in the paper, except to thank the members who have kindly discussed the paper, and to urge that we search diligently for sinusitis and at least strongly suspect it in cases of monocular optic neuritis.

DISCUSSION ON DR. ADOLF ALT'S PAPER ON "BLENNORRHŒA NEONATORUM."

Dr. Dudley S. Reynolds, Louisville, Ky.—I think Dr. Alt has modified very much those methods used in the beginning of his professional career, but I want to protest earnestly against the prevalence of meddlesome interference with the eyes of the new-born.

It has been my experience in the Louisville City Hospital, and I take it, it is the experience of others with the Credé method, that almost every one of the children have infected eyes before they are ten days old. When no meddlesome interference is practiced, the disease is rare. Careful cleansing of the new-born, when done by an intelligent nurse, whose hands have nothing to do with the lying-in woman and no other duties to perform, affords the best protection to the eyes of the new-born. When the eyes are infected, the patient must be put in a different ward. In that way we have been able to stamp out the disease. Until these methods were

practiced in the hospital we had frequent infection. There is no sense in medicating the sound, uninfected eyes of a new-born infant. I could not find language strong enough to pronounce my opinion of the meddlesome interference with the eyes of the new-born.

As to the nitrate of silver, I would like to say that it is impossible to treat all cases in exactly the same way; but where abrasion of the conjunctiva is distinct, where bloody discharge occurs, you may readily judge the disease is very probably gonorrhœal. Such cases have been called malignant when the cornea has been destroyed by the strong nitrate of silver applications. If an application can be made which will sterilize the fluids and wash the surface without irritating the eye, then it is reasonable to believe early recovery will follow; and, it may be safe to say that no lesions of the cornea will occur. In every instance where the bichloride solution is used, it should be associated with chloride of sodium, because the normal conjunctiva has always upon its surface a solution of this salt. If it be deprived of it, irritation follows. If you use a solution of chloride of sodium, five to ten grains to the ounce, and use it by irrigation every ten, fifteen or twenty minutes, according to the urgency, as indicated by the pus formed, it will cure the worst case of gonorrhœal infection. Corneal abrasions need never occur if irrigation is practiced sufficiently early. Irrigate every ten, fifteen or twenty minutes; the interval should never be greater than twenty minutes for the first four or five days of the disease. In the application of solutions of the bichloride of mercury, one-eighth of a grain of crystalized carbolic acid should be added to the ounce of solution to render the irrigation painless. The local anæsthetic properties of the carbolic acid add greatly to the efficiency of the treatment. Then, if we have in the chloride of sodium, and bichloride of mercury for bad cases, and borate with chloride of sodium for the mild cases, a means of treatment by which the cases get well in ten days, why should we be burning the eyes with nitrate of silver or protargol?

I am much pleased to hear Dr. Alt say that one part of nitrate of silver to 4,000 parts of water is sufficient to destroy the gonococcus; and that this solution of nitrate of silver has in some hands been found more potent than the one or two

per cent. solution. I believe that the weaker the solution, the better the result. I always keep in mind the statement of Sydenham, who said in his essay on the treatment of gonorrhœa, "He who cleanses well, cures well." The great point is to keep the pus away from the conjunctival surface, and not add to the injury already present.

Dr. J. O. Stillson, Indianapolis.—I never allow the Credé method to be used at Indianapolis without my consent. For many years I felt I was rather an old fogy about it, but I never could bring my mind to the point where I could see the necessity of tampering with an eye not already affected, and it seemed barbarous to me to put one per cent. of nitrate of silver into a normal eye. If I understand Credé's method, it is ten grains to the ounce, or stronger yet. I could not do that. Dr. Alt's paper meets my ideas with that exception, so far as the differential diagnosis is concerned, and I am glad he uses that old term "blennorrhœa." We know that he means a discharge, and it is not necessarily limited to the gonococcus, but is due to the different microbes, and the differential diagnosis can be made the first day. The time to begin your war is when war has been declared. Of course, when you talk about prophylaxis, that is a different thing. I would be the last to decry it, but that can be done with something else than Credé's method, and Dr. Reynolds has defined my position when he says we should take up aseptic methods instead of antiseptic ones. In Indianapolis we have not had to adopt it. We simply cleanse the eyes and use asepsis, and we have had good results.

Dr. F. A. Phillips, Chicago.—Dr. Reynolds has stated, "He who cleanses well, cures well." We have, however, one remedy, which in the cleansing process has been universally valuable, and that is permanganate of potash, and in the use of that remedy, where, as in my clinic at the Illinois Eye and Ear Infirmary, many of the patients will not come into the hospital, I invariably give this solution with instructions to use it every three or four hours, alternating with boric acid solution, which should be used every fifteen to thirty minutes in severe cases. This is a very effective treatment. The permanganate is used in a strength of 1 to 3,000 or 6,000 solution, depending upon the severity of the case, the amount of

infection, and the swelling. In the clinic I am in the habit of using a strong solution of protargol, and not the strong solution of nitrate of silver. I believe the weaker solutions are less effective.

Dr. Brown, Chicago.—It seems to me that in institutions we can safely accomplish many things that we cannot so safely accomplish in individual practice. I think we can run a great risk in simply making a routine of the care of these cases, and using this or that particular solution or remedy to the exclusion of others. Nurses and general practitioners without the necessary manipulative skill may, in attempting to carry out the measures we consider ideal, lacerate the corneal epithelium, thus opening up a pathway for infection. Very few of us believe that we directly kill the micro-organisms by the use of antiseptic solutions in this disease. Our aim is to render the conjunctival sac as near sterile as possible, and to maintain surroundings unfavorable to their further development. In this the frequency of cleansing is a most important factor, and if in this cleansing it be brought to mind that injury to the corneal epithelium must be avoided, we note an important element in the successful handling of the disease.

Dr. O. Dodd, Chicago.—There is one thing which I find to be of great benefit in keeping the eye clean, and which does away with the necessity of frequent cleansing. I think every ten, fifteen or twenty minutes is too frequent, as the children can not stand it. I have seen them so excited over the frequent disturbance that it would have been very serious if continued. The thing I speak of is the use of vaseline in the eyes after each cleansing. It has worked very well in the cases where I have used it. I have found in these cases there is much less danger of corneal infection. It protects the cornea, allows the secretion to get out by preventing the sticking together of the lids, and makes the frequent cleansing unnecessary.

Dr. W. L. Dayton, Lincoln, Neb.—A few words in regard to the keeping qualities of the protargol solutions. Of course, the same care must be bestowed on the preservation of the solution as on the nitrate of silver solutions, but it appears to me the one, five, or ten per cent. solutions deteriorate with age. I have noticed it, and frequently spoke of it, that it is more

irritating when frequently prepared, even in the weaker solutions, than is the stronger later on. Whether there is a precipitate or not, later it gets darker, which shows there is a deterioration. I have sometimes used a five per cent. solution of the older at the hospital and found there was less smarting than with the newer preparations of the same strength. I thought at first there was but little irritation from the protargol solution; in many cases there is considerable; it is only for a moment, and is nothing like as lasting as the weakest of the nitrate of silver solutions. There is a close distinction between asepsis and antisepsis. In the treatment of the eyes of the new-born, cleanliness is the great factor, and even then we use the simple normal salt solution. When it is used five to ten grains to the ounce, it is a little above the normal salt solution; therefore I use two and a half grains to the ounce. But so far as the frequent cleansing the eyes of the new-born, I believe it is essential to keep them clean of secretion, and I advise the nurse to do this thoroughly as often as may be necessary. The country doctor does not have the advantage of the city doctor and can not depend upon trained nurses, but has the neighbors, or possibly some old lady who is the nurse in the neighborhood at time of confinement; these people are very careless with the baby's eyes. I find this disease is much less frequent than it used to be—whether it is because of the teaching of our colleges that cleanliness is important, or that the old women are less frequent and supplanted by trained nurses. But whether we use an aseptic or antiseptic, it is the main feature to use it so that it will not irritate the cornea. Permanganate of potash is undoubtedly good. Of course, in the strength of 1 in 3,000 it has certain staining qualities which are bad, and its value is not greater than the borate solution or the normal salt solution.

Dr. C. W. Dodd, Cincinnati.—A question in our private practice arises as to just how this cleansing shall be done to avoid injury. We are apt to say, "This must be cleaned so often." But how is that cleansing to be done? If you simply say, wipe the pus out with cotton, you run the risk of scratching with the fingernail. Or, if you suggest wrapping cotton on a wooden tooth-pick, the nurse or mother is liable to leave the end of the pick projecting, endangering thereby the cornea or

conjunctiva. I try to furnish the person who is to carry out my instructions with a simple glass rod, such as I have used for the past thirteen years. The idea was given me by Prof. Leber, now of Heidelberg. The glass rods are solid, one-eighth of an inch in diameter, and about four or five inches in length, and they should taper somewhat at each end; both ends should be a trifle flattened or spatula-like. No other form of cotton carrier can be so clean, remain aseptic, and be so incapable of harming the eyes; cotton is easily wrapped on to the rods and as easily removed. By means of the rod, cotton can readily and carefully be passed under an upper lid, which is difficult to evert, and with no injury to the epithelium of cornea or lid. Vaseline ointment, either simple or medicated, I also use in these cases; and for introducing any kind of ointment into the eye no other means is so safe and cleanly as these same glass rods. In the thirteen years I have been using these rods daily, I have never had the slightest injury result therefrom.

Dr. D. T. Vail, Cincinnati.—I wish to add my experience. The remarks so far have left unchallenged the plea made by the essayist for the milder applications in this dread disease of the eye instead of the old-fashioned strong nitrate of silver solution.

In the Cincinnati hospital I had some sad cases of blennorrhœa neonatorum, in which the diagnosis was made with the microscope and the gonococcus found present; and I being anxious to spare these little beings the sufferings which I had been led to believe they must undergo, when powerful astringent solutions were used, tried the newer methods, as recommended by the essayist. I used the protargol thoroughly in the weaker solutions, and also the Scott's solution, and am sorry to say that my experience was very sad. The eyes were lost; they ran out, and I believe if I had it to do over again I could have saved them by the old regulation nitrate of silver treatment. I have gone back to the nitrate of silver solution. I turn the eyelid over and keep on turning it to expose the rugæ of the cul-de-sac, and then by means of a soft camel's hair brush I apply the two per cent. nitrate of silver solution thoroughly, being careful to avoid the cornea. I then gently mop the excess of the solution by means of wet cotton, well

squeezed, apply a little plain vaseline, and use ice applications. I am free to confess that in an experience of twelve years I have yet to see the first case lost when so treated, except where the cornea was already ulcerated before this treatment was instituted.

Dr. C. R. Holmes, Cincinnati.—In regard to the use of protargol, I have tried it in normal eyes in solutions from three to twenty per cent. to ascertain the strength that could be borne without suffering, if the preparation is properly prepared. Dr. Emil Gruening told me several months ago he was using twenty per cent. solutions in private practice, and he was enthusiastic over the result. Recently he referred to the subject in the same terms. I would ask what experience others have had with the retractor irrigator under the lid. I do not see why a glass rod should be used. Soft pledgets of cotton are all we need. The vaseline I have also used for a long time, and I consider irrigation every ten minutes too frequent, as it exhausts the child. I never irrigate oftener than every half hour or hour.

Dr. Dudley S. Reynolds, Louisville.—I abhor the idea of touching the eye with any instrument. My method is to take the glass out of a common eye dropper and place it in the end of the rubber tubing connected with a rubber bag of not less than a quart capacity. The bag should hang twelve inches above the plane on which the patient's head rests. This gives a small stream which will play over the surface of the lid, holding the upper lid up and the lower lid down with the finger and thumb. Then by holding the nozzle over the bridge of the nose, never permitting it nearer to the eye than one inch, the danger of wounding the cornea is entirely removed. A small bit of cotton-wool should be held on the temple to catch the flow. Do not touch the eyeball, but hold the lids with the fingers, and let the fluid play on the everted lids, never on the cornea. As to vaseline, it is unreliable, as we never know what it may contain. We should always order petrolatum, which is recognized by our Pharmacopœa. This may be relied upon as a safe and mild antiseptic.

Dr. Alt, St. Louis, in closing the discussion said: We are all of the same opinion—that we would not put any medicine into the eyes unless there is a suspicion of infection. In-

deed, I spoke of cases where I was satisfied that very thing had produced the discharge. With regard to cleansing of the eyes by the nurse, I am greatly in favor of their doing it without coming in contact with the eye. By using a large amount of warm borate solution with the eye dropper and simply manipulating the lids gently, they will be able to wash out nearly all of the pus without touching the eye itself. With regard to the decomposition of the solution Dr. Dayton spoke of, I am satisfied that it deteriorates when it gets old. However, I use it all the time, and my solutions have not time to get old. I have not used nitrate of silver for three years in any case whatever. I have used protargol in every case. This I could not have done if I had not found it to be what I claim for it. I would not give the nurse a glass rod; it is too dangerous. With regard to the camel's hair brushes Dr. Vail speaks of, I never use them any more. I examined some of my brushes under the microscope and I am satisfied that some of the little hair spikes come off, and I use no more brushes. I use cotton wound around the little instrument the dentist uses to drill in the nerve canal. When I buy this, it is sharp at the end which I wrap the cotton, and this I file off. With regard to the loss of eyes Dr. Vail speaks of, I never have had such an experience. I have been perhaps extraordinarily fortunate, but I do not remember any eyes lost from blennorrhœa neonatorum, not only in my practice, but also that of others, which had come to the specialist at a time when there was not yet any alteration of the cornea.

PAMPHLETS RECEIVED.

"Thirty-Second Annual Report of the Brooklyn Eye and Ear Hospital."

"Treatment of Nasopharyngeal Adenoids," by L. J. Lautenbach, M.D.

"An Original Chart of the Neuronic Architecture of the Visual Apparatus," by L. Stricker, M.D.

"The Diagnosis and Treatment of Some Functional Forms of Defective Speech," by G. H. Makuen, M.D.

THE VALUE OF METHYL BLUE AS A LOCAL APPLICATION.*

By M. F. COOMES, A.M., M.D.,

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LOUISVILLE, KY.

Mr. President and Gentlemen of the Western Ophthalmologic and Oto-Laryngologic Association:

IN presenting this subject to your society, I will endeavor to present the clinical side of it exclusively. The methyl blue, as you all know, is a coal tar compound used extensively in dyeing and in the arts, and staining bacteriological specimens. It is a diaphenylamine compound; it is known as such to the laboratory chemist.

First of all, it is a germ destroyer, and this property is most likely due to its great penetrating powers. Possibly it chokes the germs to death. My first experience with it was about the time it made its appearance on the market, some fifteen years since. The first case in which I used it with marked benefit was in a case of lupus of the nose. This case occurred in the person of an old woman, and was apparently a hopeless one. I ordered a solution of the drug in the strength of five grains to the ounce of water, to be applied after thorough cleansing night and morning. The sore healed rapidly and has remained closed from that day to this. This patient had gone the rounds of the profession, and had been treated with almost all of the drugs that are used for the cure of open sores.

I have treated suppurating otitis media with it for years, and with most satisfactory results. After the suppurating surface has been rendered as nearly clean as possible, a solution of five grains to the ounce of water is dropped into the ear and permitted to remain by packing the external canal with cotton. In many cases where the discharge is slight, a single application will dry the ear for weeks and even months. Its curative powers in these cases seems to be due to its pow-

*Read at the meeting of the Western Ophthalmologic and Oto-Laryngologic Association, held in Cincinnati, Ohio, April 11-12, 1901.

ers for penetrating and staining open tissues. It finds its way into recesses that the cleansing solutions and other agents can not reach. In suppurating conditions of the lacrymal sac there is no application that equals it in arresting the discharge. When the sac has been properly drained, a few washings with the blue will suffice to destroy the pus.

In diseases of the antrum of Highmore, where there is pus, it will be found equally valuable. In some of those cases, with the most thorough drainage there may be a pocket that contains pus, and the blue will be one of our most valuable agents in making the cure complete. In all of these cases the blue will be one of the most valuable agents at our command.

In carbuncle it is equally valuable, and in fact its value in the treatment of an abscess anywhere cannot well be over-estimated. Time and again I have seen large carbuncles about the neck cured in from eight to ten days by the following treatment: A crucial incision under local anæsthesia; the cavity or cavities evacuated and swabbed out with liquid carbolic acid, and then mopped out with methyl blue and packed lightly with gauze saturated with the blue. If there are many cavities, as there is in some cases, they should be thoroughly cleansed after the first dressing has been removed, and redressed with the blue each day until recovery is complete.

In purulent conjunctivitis—ophthalmia neonatorum—it ranks with any local agent at our command. I have relied on it for years, and in all of that time have lost the eyes of but one child. In this disease the same rules as to cleanliness must be pursued, and the blue applied two or three times a day, according to the emergencies of the case. It does not check the suppuration so suddenly as silver, and in fact its action is entirely different. It will not stain the cornea permanently. Its use should be persisted in to secure the best results.

As a means of diagnosing the presence of corneal ulcers, it has no equal. Its affinity for open tissues is so great that it takes hold of them and makes such a clear outline that it not only defines the outline of the ulcer, but furnishes a guide for the application of the actual cautery or any one of the caustics that is necessary to apply. Its value in these cases is especially valuable to practitioners and surgeons who are

not experts in detecting these ulcers; in fact, in any case where there is doubt as to the absence or presence of an ulcer of the cornea, this stain will settle it promptly.

It not only stains them, but it is one of the very best local applications that can be made to ulcers of the cornea where the use of a strong caustic is not demanded—either before or after the caustic application. Its germicidal properties are here fully demonstrated.

In cases of follicular tonsillitis, it is almost a specific. In the clinic at the Kentucky School of Medicine, where every opportunity to demonstrate its efficacy is afforded, there have been hundreds of cases treated in the last ten years. It is a rare thing to have them make a third visit, the great majority of them not making more than one visit.

Cancer.—In epithelioma, I have witnessed some remarkable results from the local use of methyl blue. One most remarkable case, that of a Mr. White, at Big Clifty, Kentucky. This man had lost a brother from cancer, beginning in the lip, extending to the larynx, and finally killing him.

At the time I saw Mr. White, fully one-third of the lower lip was involved, and was in such a condition as to suggest the prompt and free use of the knife as the only means of giving any relief. It was one of those angry looking sores that is frequently met with in practice that suggests the idea of feeling grateful to think that the other fellow has the sore.

The clinical appearance of the sore was such that the free use of the knife was the only thing that entered my mind as a means of relief. The patient and the doctor both objected to the use of the knife, and, as a compromise, the blue was applied, with the understanding from me that I did not believe that it would do any good. Much to my astonishment, the sore began to improve, and in forty days was entirely well, and has remained so until now, and the man is enjoying excellent health.

This is an ideal case, where the results exceed all expectations; but I have observed many cases where the growths have disappeared, and open sores of long standing have been healed up by the use of the blue. I think it a most valuable agent, that has been overlooked, and I trust that this paper will result in its increased use, as it must necessarily prove beneficial to both doctors and patients.

DISCUSSION.

Dr. J. O. Stillson, Indianapolis.—I simply wish to ask one or two questions about the bactericidal properties of this drug. I understand the Doctor makes a solution in water—five grains to the ounce of water. Is it simply the aqueous solution of methyl blue that is taken up by the tissue that comes in contact with the bacteria and stains them, or is it necessary that this be used with some other bactericidal agency or anything besides water? We all know, of course, that in staining bacteria we first fix them on slides. Now the fixing process by means of heat is the killing process. I simply ask for information, because I do not know why it should act as a bactericide on account of its coloring; whether the re-bleaching by the Gram method might not bring the bacteria to life again.

Dr. Adolf Alt, St. Louis.—As soon as I had read Stilling's article, recommending pyoktanin (methyl violet) as an antiseptic, I procured it, and have, in a measure, been using it ever since. My first experiences I published in a paper in the American Journal of Ophthalmology, Vol. X., p. 314. I have experimented with it largely in eye diseases; and while I can also testify to its good qualities, particularly in the treatment of the lacrymal sac, I have had to abstain from it in my private practice on account of the staining. My patients did not want to go about with blue eyes. I have also used it in purulent otitis media, and when applying the pyoktanin solution in good quantity, so that the whole tissue is stained, you will find a very rapid and astonishing change in the discharge from pus to mucus. Some cases even get well in a very short time; others, however, do not. Whether this is due to the bactericidal power, I am unable to say. That it must have some kind of astringent quality, seems quite clear from the fact that the mucous membrane gets hard and dry after its application. I usually use one grain to the ounce. It acts sometimes a great deal better than boracic acid. I also quite recently found it to exert a most beneficial influence in cases of dry eczema of the meatus auditorius.

Dr. Coomes, Louisville, in closing, said: I have made no microscopical examinations, and simply assume that the cure must be due to its bactericidal qualities. You take tonsillitis;

we know it is a germ disease. In my practice they get well without trouble, and it is simply an assumption that it is by germ destruction. It is a great drier. I have a great many friends whose experiences with the blue have been similar to mine. The five per cent. solution gives considerable pain.

BOOK REVIEWS.

MYELITIS UND SEHNERVENENTZUENDUNG (MYELITIS AND NEURITIS OPTICA). By DR. MAX BIELSCHOWSKY. With Four Plates and Three Illustrations in the Text. [Berlin, 1901. S. Karger. Price, 4 marks.]

In this most interesting work the author reports four cases of optic neuritis, associated with myelitis, which he has had occasion to examine in a very exhaustive manner, both clinically and microscopically. Some excellent micro-photographs and drawings accompany the text. The changes in the optic nerves showed no direct connection with those in the spinal medulla, and the contemporaneous appearance of the spinal disease and the optic neuritis and consequent atrophy, could be explained only by ætiological factors common to both affections. ALT.

SYMPATHICUS-RESECTION FOR GLAUCOMA. By DR. M. ZIEHE and PROF. TH. AXENFELD. From the Eye Clinic of the University of Rostock. With Ten Illustrations. [Halle, A. S. 1901. Carl Marhold. Price, 2 marks.]

In this excellent and exhaustive review on the subject, the authors make use of seventy-four cases, five of which are their own. They conclude that sympathectomy is not a dangerous operation. That while in acute inflammatory glaucoma it is, as a rule, out of place, it may do good in hæmorrhagic, chronic, inflammatory and simple glaucoma. In most cases it is only to be resorted to after iridectomy has been performed. In all cases of glaucoma in which the present therapy does not succeed, sympathectomy is justified and recommended, although we cannot count on its always being successful. ALT.

MEDICAL SOCIETIES.

PROCEEDINGS OF THE OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.*

Clinical Evening.

Thursday, May 2nd, 1901.

G. Anderson Critchett, M.A., F.R.C.S.E., President, in the Chair.

Pulsating Double Exophthalmos.

Mr. Nettleship, for Dr. D. J. Wood, read notes of a case of pulsating double exophthalmos following injury to the head, cured by ligature of the left common carotid. The patient, an engineer, fell on his head from a bicycle and was picked up unconscious. The exophthalmos developed gradually, pulsation being very obvious, and the left carotid was ligatured ten days after the accident. Pulsation was arrested immediately, but some signs of aphasia and paresis supervened, which cleared up, marked improvement occurring in twenty-four hours. After operation, vision in the right eye was $^{6}/_{6}$, in the left $^{6}/_{60}$, owing to atrophy and scotoma. Pulsation and proptosis were permanently abolished.

Mr. Treacher Collins referred to a case under his care two years before, resulting from a bullet wound. The missile was located by the X-ray at the base of the basilar process; there was pulsating exophthalmos, and the *bruit* was not only audible to the patient, but to those near him. Manual pressure was tried, but proved unsuccessful, and Mr. Openshaw ligatured the common carotid with great benefit, though the condition recurred after eight months, but in less degree.

Congenital Ptosis.

Mr. G. W. Roll exhibited two cases of congenital ptosis in which Hess's operation had been performed with benefit. The elder lad had been operated upon three years ago, and the cure was probably permanent. One year only had elapsed in the case of the younger, but in this the condition was bi-

*British Medical Journal.

lateral, and he had quite lost the habit of throwing the head back, common in these cases. Mr. Roll referred to Mr. Lawford's account of Hess's operation in the thirteenth volume of the *Ophthalmic Review*, but said he preferred to leave the stitches in fourteen days instead of ten, and also inserted them nearer the free margin of the lid instead of midway between that level and the margin of the orbit.

THE PRESIDENT cited five cases in which he had operated, of which two were permanently successful, and three appeared to be drifting back to their original condition.

SARCOMA OF ORBIT.

MR. SIMEON SNELL exhibited a sarcoma of the right orbit, removed from a miner, aged 38, on December 10, 1900. A small nodule had been noticed eight months previously beneath the lower lid, and had gradually enlarged, till at the time of the operation the growth was the size of a pigeon's egg, freely movable, painless, and could be pushed back along the floor of the orbit. The globe was slightly raised. When removed, the tumor was kidney-shaped, 3 cm. long by 2 cm. wide, definitely encapsuled, and made up of large spindle-shaped cells.

SEROUS IRITIS AND TACHYCARDIA.

DR. RAYNER D. BATTEN exhibited two cases of serous iritis with tachycardia. The first, a girl, aged 14, had been one year under observation. The serous iritis was very marked, and in January last a nodular deposit appeared in the inferior angle of the anterior chamber; this had diminished somewhat, and become vascular. The tachycardia and thyroid enlargement had improved at one time and then recurred. The second girl, aged about 20, presented well-marked serous iritis, with synechiæ of the iris. There was persistent tachycardia, with enlarged heart, tremors, and flushings, but no distinct enlargement of the thyroid. The speaker had met with other cases of a similar kind, one of which suffered a destructive sclero-keratitis, with loss of the eye.

THE PRESIDENT recalled two cases presenting this combination of symptoms.

CHOROIDITIS.

MR. G. HARTRIDGE exhibited a case of choroiditis, which

had been shown in an early stage in December, 1898. Vision in one eye was $^{6}/_{6}$, and in the other $^{6}/_{60}$, though the fundus change in both seemed about the same.

The President referred to a somewhat similar peculiarity of vision in connection with nebulæ; sometimes with a small area of cornea involved vision was very defective, while in others with an apparently extensive opacity the patient could see wonderfully well.

Periscopic Glasses.

Mr. A. S. Percival showed a pair of periscopic glasses. The lenses, being concave, allowed of lateral movement of the eyes, provided the paper read was slightly curved, without the distortion usually experienced while using lenses ground on the flat. The curve was so arranged that the circle of confusion, developed when looking 25 degrees right or left, was not larger than the maximum sectional area of a retinal cone —0.002 mm.

Malformations.

Mr. W. Lang showed an infant with a congenital notch in the outer part of the left lower lid, and dermoid growth on the eye; the latter was flat, and more loosely connected than usual.

Mr. Adams Frost exhibited a girl with a variety of malformations about the face. There was a quadrilateral gap in the right upper eyelid, the lashes being absent, while above the eyebrow was a tuft resembling them. The caruncle was deformed, and at the outer canthus there projected a mass resembling a lobe of the lacrymal gland. The development of the external ear was defective on the same side, and though there was no meatus, hearing was not entirely absent. A dermoid structure existed near the right angle of the mouth, also projecting on the inner aspect, and there was a dimple on the left side, as if something had been removed. The eye was healthy; there was no coloboma of the choroid.

Mr. Johnson Taylor said that dermoid growths on the cornea sometimes had deeper connections than were apparent, and required to be handled with caution to avoid perforating the globe.

The President recommended a blunt-pointed knife for the purpose.

Refractometer.

Mr. C. Blair exhibited a portable refractometer, which consisted of a spectacle frame carrying revolving discs fitted with glasses so arranged that an extensive range of lenses could be placed before each eye, saving time and trouble in retinoscopy and testing. The discs were five inches in diameter, and the frame weighed eight ounces.

Foreign Body in Eye.

Mr. J. B. Story showed a thorn which had been buried in the iris at the edge of the anterior chamber for two months, the outer end being entirely obscured by lymph; when once discovered the removal had not been attended with difficulty.

The President said that he had found a splinter of wood in the anterior chamber of an eye that had been injured while the patient was chopping wood twelve years previously. Some irritation had occurred on three occasions.

Primary Chancre of Lid.

Mr. C. Wray showed a case of primary chancre of the lower lid, which had been inoculated by the finger nail after scratching a specific sore.

Detached Retina.

Mr. C. Wray also exhibited a man who had had extensive detachment of the retina. There were 15 dioptres of myopia. The tunics of the eye had been twice punctured with a Graefe's knife at a fortnight's interval, after the manner described by Wolf. The eye, in addition, had been bandaged and instilled with atropine, and pulv. hyd. c. cret. had been administered in 2-gr. doses thrice daily. The retina had become reapplied to the choroid, and vision was $^{6}/_{60}$ and improving.

Mr. Marcus Gunn said the operation in question had been repeatedly performed before the account published by Wolf, and could not rightly be associated with his name. In the present case there was still a little detachment, and also some affection of the choroid resulting from the interference, which no doubt assisted the reattachment.

Mr. Johnson Taylor said he had performed the operation two or three times, but thought in all the cases the patient's condition had been made worse.

The President said his own experience had been dis-

astrous. One case, in which he had advised against the operation, had since undergone three operations in Paris, at considerable expense, and vision was only equivalent to J. 19, though previously it had been J. 8.

[A third case was one of doubtful exostosis of the orbit (with skiagraphs)].

Spring Catarrh.

Mr. Holmes Spicer showed a case of spring catarrh in a quiescent stage. The appearance was quite typical, the milkiness of the lids, and the granular condition of the conjunctiva being well marked and showing the characteristic hexagonal pavement appearance. The patient had spent three years in Johannesburg, having attacks each summer, but suffered most of all when crossing the line at sea on his return while exposed to the greatest heat.

Mr. W. Lang expressed his opinion that it was of the greatest importance that rather uncommon cases of this sort should be shown at the Society. He had under his care at the present time a child who had, in consequence of this complaint, been subjected to a plastic operation, which had resulted in ptosis, pannus, and iritis. Had the condition been recognized, no such treatment would have been undertaken.

Double Temporal Hemianopsia.

Mr. A. H. Thompson showed a case of double temporal hemianopsia with optic neuritis, which occurred suddenly at 5 a.m., three weeks ago, in a young woman, in association with the vomiting of pregnancy. The outer half of the visual field was lost in both eyes, which presented the characteristic hemianopic pupil reflex, no contraction taking place when light was directed from the temporal side, though it was manifest when thrown into the eye from the nasal side. The discs showed the changes of neuritis. The lesion was probably of the anterior part of the chiasma.

Mr. Marcus Gunn had suggested hæmorrhage into the pial sheath.

The President thought the indications were against the supposition of tumor.

Thiersch's Graft of Orbit.

Mr. J. H. Fisher showed a case of Thiersch's graft of

the orbit employed after removal of the globe, retro-ocular tissue, and lids for sarcoma of the sclerotic. There had been three operations. The skin was obtained from the arm, and a month after the operation had covered the orbit, obviating at once the slow process of granulation and the unsightly contraction of the eyebrow. Three other cases had been treated in a similar way, with equally good results, by Continental surgeons.

PAMPHLETS RECEIVED.

"Hæmorrhagic Glaucoma," by Ch. A. Oliver, M.D.

"A Scientific Basis for Medicine," by E. C. Hebbard, M.D.

"The Relation of Migraine to Epilepsy," by A. A. Hubbell, M.D.

"Operation Insuring Motility of the Artificial Eye," by H. Wolff, M.D.

"The Throat and Nose in Scarlet Fever," by W. Cheatham, M.D.

"Sterilization of Instruments with Formaldehyd," by H. O. Reik, M.D.

"Report on the Examination of the Ears of 440 School Children," by H. O. Reik, M.D.

"A Case of Sinus Thrombosis Complicated by Cerebellar Abscess," by E. B. Dench, M.D.

"Fifteenth Annual Report of Maine Eye and Ear Infirmary," Portland, Me.

"Clinical and Histological Study of a Case of Melano-Sarcoma of the Choroid," by Ch. A. Oliver, M.D.

"Demonstration of Microscopical Specimens at the Heidelberg Ophthalmological Society," by T. Axenfeld, M.D.

"On the Minute Histology of the Lacrymal Gland, Especially the Presence of Fat Within the Epithelia," by T. Axenfeld, M.D.

ABSTRACTS FROM MEDICAL LITERATURE.

By W. A. SHOEMAKER, M.D.
ST. LOUIS, MO.

ON ULCUS RODENS CORNEÆ.

Schmidt-Rimpler (*Archives of Ophthalmology*, March, 1901) describes this rather rare condition, and reports a case. The disease begins as a narrow extended ulcer along the corneal margin. It differs entirely from ulcus serpens, which usually begins at the center and progresses toward the periphery. It might be confounded with shallow marginal ulcers, seen in old people, but the periphery does not heal with a new formation of vessels and thickening of tissues, while the ulcer extends centrally. Moreover, these ulcers have not the undermined gray margin, and are more transparent. There is a particular form of marginal ulcer, which the author, in his text-book, calls chronic peripheric furrow keratitis, which might in the beginning be confounded with ulcus rodens, but it never extends centrally, as does the latter. The etiology of rodent ulcer is uncertain. The author rejects the view of Ahlstrom and others, that it may be due to anæsthesia of the corneal nerves. The most rational treatment, he thinks, is cauterization and scraping, and possibly covering the ulcer with conjunctiva, though a favorable result can not always be expected.

A CASE OF LEFT HOMONYMOUS HEMIANOPSIA, PROBABLY HYSTERICAL.

M. N. Zimmerman (*Ophthalmic Review*, March, 1901) reports the case of a servant, aged 25 years, who enjoyed fairly good health, and gave no history of injury to head. During the two years previous to consulting the author, she had six convulsive seizures, with loss of consciousness. On account of one of these she was admitted to the hospital, where she had several seizures within two days. On the third day after admission, an ophthalmoscopic examination was made, and the fundi were found normal. Vision, however, was *nil*,

"except the perception of light in the left halus of both visual fields." Three days later the patient's condition permitted careful perimetric records to be made as to form and red in the right eye, and on the following day in the left. The patient made a rapid recovery, after general and local treatment for a retroverted uterus. Sixteen months later, she wrote that she was in good health, and had no eye trouble of any kind.

The author thinks a diagnosis of hysteria is justified by the following facts:

1. The temporary character of the hemianopsia and its association with marked peripheral contraction in the retained fields.

2. The presence of reversal in a marked degree after recovery.

3. The absence of any other symptom of organic disease, and the very definite association of the attacks with delayed and painful menstruation.

4. Disappearance of all symptoms after partial cure of the pelvic condition, with great improvement in general health.

MELANO-SARCOMA OF THE CHOROID, WITH REPORT OF THREE CASES.

Francis W. Alter (*Toledo Medical and Surgical Reporter*, March, 1901) reviews the symptoms and stages of this disease, and reports three cases. His conclusions are as follows:

1. Melano-sarcoma of the choroid is a fatal disease. Probably not more than 15 per cent. make an absolute recovery after operation.

2. The prognosis of this affection, though grave in all stages, is best with an early operation.

3. It is well-nigh impossible to make a diagnosis of acute inflammatory glaucoma due to tumor when the fellow-eye presents a glaucomatous aspect, as evidenced by Case No. 1 recorded in this paper.

4. The round-celled highly vascular tumor speaks almost unequivocally of a fatal termination. The spindle-celled growth gives a much more hopeful outlook.

5. The presence of melanin in the urine gives strong evidence of metastasic involvement. It foreshadows a fatal termination.

CASE OF CAVERNOUS ANGIOMA OF THE ORBIT.

A. L. Whitehead (*British Medical Journal*, April 13, 1901) reports a case of cavernous angioma of the orbit in a man, 51 years of age, which had first been noticed about ten years previously. There was sufficient exophthalmus to prevent closure of the lids, and an ulcer on the cornea had developed. The movements of the eyeball were decidedly restricted, and the pupil was dilated. The tumor was bluish-black, and could be seen above the globe. No pulsation was present, The growth was not attached to the walls of the orbit. The fundus was healthy, and vision = $^{6}/_{60}$. Under ether, the external canthus was divided, the capsule was dissected up, and the external rectus divided; the tumor was removed *en masse* with some difficulty, but without injury to the eyeball. The growth was lobulated, and nearly encircled the optic nerve. Hæmorrhage was slight, requiring no ligatures. The recovery was uneventful, and the vision improved to $^{6}/_{9}$, with almost normal movement of the eyeball. The growth measured $5^{4}/_{5}$ cm. $\times$ $3^{7}/_{10}$ cm. Examination showed it to be a cavernous angioma of the fibrous variety.

DIFFERENT METHODS IN WHICH GLIOMA OF THE RETINA INVADES AND AFFECTS THE OPTIC NERVE.

E. F. Snydacker (*Archives of Ophthalmology*, March, 1901) thinks the methods of invasion of glioma of the retina are as follows:

1. The commonest method of invasion is for the tumor cells to force their way through the interspaces of the lamina cribrosa, into the nerve-fiber bundles, to follow these backward, invading them and substituting glioma cells in their place.

2. The perivascular spaces of the central vessels also afford a means of ingress for the tumor cells. The tumor pushes its way in alongside the vessels, and then the cells radiate outward in the stroma of the nerve exactly as the anatomy of the parts would lead us to expect, for the septa are connected with the vessel sheaths, radiating outward and forming the sustentacular framework of the nerve.

3. The cells, after infiltrating the nerve fibers through the

lamina cribrosa, invade the pial sheath, fill the intervaginal sheath, run backward and reinvade the nerve, mainly along the septa.

4. The cells invade the choroid, then follow the course of the posterior ciliary vessels and nerves. In this manner they may invade the dural sheath in one of two ways: they may force their way between the fiber bundles of the sclera and thence into the dural sheath and intervaginal space, or they may make their way into the retrobulbar space and from here invade the dural sheath.

5. The glioma cells follow the course of the venæ vorticosæ, and from here follow the lymph channels into the supravaginal space and infiltrate the nerve sheaths.

6. Tumor perforates the ball and invades the nerve from the orbit.

CONTRIBUTION TO DIPHTHERIA OF THE CONJUNCTIVA.

Schlisinger (*Münchener Medicinische Wochenschrift*, January 15, 1901) reports two cases of pseudo-membranous conjunctivitis. In the first, diphtheria bacilli were not obtained in the cultures; nevertheless, an injection of antitoxic serum was given, and, in addition, vigorous local treatment with antiseptic solutions was employed. The patient made a good recovery. In the second case, diphtheria bacilli were found. The same treatment was employed with equally satisfactory results. The advantage in employing anti-diphtheritic serum is that it hastens the separation of the membrane, and improves the general condition of the patient. It should be used as soon as the diagnosis is made.

TREATMENT OF DETACHMENT OF THE RETINA.

Sträkle, in his (Basel) Inaugural Thesis, gives an account of the treatment of twenty-three comparatively recent cases of the disease by subconjunctival injections of salt solution. In ten cases there was a marked improvement, with complete restoration of the detached membrane in three. In nearly all (twenty-one) improvement of vision set in; in seventeen there was an enlargement of the field of vision. As might have been expected, the more recent the detachment, the more marked was the improvement. The operator began usually with a

weak (two per cent.) solution, but finally employed a four and even a ten per cent. solution. In many instances the last strength seemed the most effective. The author thinks that the exosmosis and endosmosis set up by the salt solution reduces the amount of the subretinal fluid without decreasing the vitreous mass, thus permitting the retina to resume its normal position. There is, at least, one consideration not to be lost sight of in this connection. In choosing a form of treatment for detachment of the retina, this plan has the advantage of being without risk—which cannot be claimed for procedures like the Schoeler and Deutschmann methods.—*Ophthalmic Record*, April, 1901.

FIVE HUNDRED OPERATIONS FOR CATARACT.

S. N. Korskenewsky (*Vratch*, March 3, 1901) reports five hundred cataract extractions, with the following results: Good vision in 348, or 67.2 per cent.; medium in 61, or 13.5 per cent.; poor in 17, or 3.8 per cent.; vision lost in 25, or 5.5 per cent. The results in 49 cases are not reported. The operations were performed under various circumstances; in hospitals and in peasant huts. Almost all forms of cataract, with their usual complications, were represented. Iridectomy was done in every case. The author insists on thorough asepsis and antisepsis.

A CASE OF NON-COMITANT RIBBON-LIKE KERATITIS, WITH REMARKS.

M. F. Weyman (*Ophthalmic Record*, April, 1901), from a study of the case reported, infers:

1. That ribbon-like keratitis arises from trophic disturbances in the lymph spaces of the anterior layers of the parenchyma.

2. That, as a result, Bowman's membrane suffers and thus produces epithelial hypertrophy in the same manner as a low grade of irritation in a wound would produce unhealthy granulations.

3. That calcareous degeneration is an accidental result, but that desiccation being most easily effected in the line of the palpebral fissure, the typical bands would naturally appear there first.

SUPRARENAL EXTRACT.

W. H. Bates (*Medical Council*, March, 1901) gives his experience with this remedy in various ocular troubles. He has treated many cases of conjunctivitis successfully with local applications, and finds it a valuable remedy in the treatment of keratitis, iritis, glaucoma, and dacryocystitis. The author considers it a safe remedy to use in all inflammations of the eye. As a hemostatic, in eye operations, he considers it the best.

NEURITIS RECURRING AFTER ATROPHY OF BOTH OPTIC NERVES IN A CASE OF BRAIN TUMOR.

Edward R. Williams (*Boston Medical and Surgical Journal*, May 16, 1901) reports a case in a woman, 22 years old. There had been attacks of headache and vomiting, followed shortly by failing of vision, which could not be improved by glasses. One year later, there was marked atrophy of both nerves, with signs of old hæmorrhages about the maculæ. Two days before death, which occurred three months later, after prolonged coma, ophthalmoscopic examination showed typical double optic neuritis. The literature on the subject is extensively referred to.

A CONTRIBUTION TO THE SYMPTOMATOLOGY AND HISTOLOGY OF PRIMARY MYXOSARCOMA OF THE OPTIC NERVE, AND THE OPERATIVE REMOVAL OF SUCH GROWTHS BY KRONLEIN'S METHOD.

Axenfeld and Busch (*Archives of Ophthalmology*, May, 1901), after reporting a case in which a myxosarcoma was removed from the posterior orbit, surrounding the optic nerve, call attention to the noteworthy features, which are:

1. The periodic variation of the exophthalmus, with accompanying fever.

2. The almost perfect acuteness of vision and complete field on the day of operation after the exophthalmus had lasted eight months and a considerable tumor of the nerve had developed.

3. The extirpation of the tumor by Krönlein's method, with permanent preservation of the ball.

4. The extensive improvement of the paralysis of the ocular muscles after the operation.

5. The condition and distribution of the medullated fibers in the optic nerve.

6. The existence of hyaline cartilage in the nerve.

THE RELATION OF THE SYMPATHETIC NERVOUS SYSTEM TO FUNCTIONAL AMBLYOPIA.

H. D. Pearse (*Albany Medical Annals*, June, 1901) concludes his paper on this subject as follows:

"Our knowledge of the manifold manifestations of the disease, hysteria, in every structure of the body will not permit us to say positively that the retinal elements, the conducting channels of visual sensation, or the visual centers themselves are free from the influence of this disease. The effect upon the visual apparatus of fright, shock, emotion, mental exhaustion, over-exertion, etc., is essentially the same as in hysteria, and whether the sympathetic is concerned in this action is yet a question.

"In view of the known sphere of action of the sympathetic and of the many cases observed, which present the same conditions in the vessels of the fundus which the influence of the sympathetic produces elsewhere in the body, if the sympathetic does not influence the fundus vessels, what does? Until a more plausible source of influence is positively demonstrated, we cannot do better than accept this explanation, which is far removed from a theory."

SYMBLEPHARON OPERATION.

Hugo Wolff (*Archives of Ophthalmology*) says the difficulty of making a permanent retrotarsal fold is considerable in all the symblepharon operations hitherto practiced. From a study of the anatomy, he concludes that the tendinous expansion of the superior rectus, which lies just beneath the conjunctiva, is the natural insertion of the upper conjunctival arch, and might serve as the desired fixed point of attachment for the new-formed retrotarsal fold. He reports a case, and says that in the future he will do the operation in the following manner:

After separating the adhesions until the upper lid can be doubly everted, a horizontal incision will be made in the expansion of the rectus, where the retrotarsal fold should lie. Then, in order to prevent excessive swelling, the lid will be replaced, and perhaps tampons be introduced to check the

hæmorrhage. After dissecting up the flaps the lid will be everted, so that the flaps may be sutured to the expansion of the rectus in the manner described. It would seem better to cover the tarsal wound also, so as to prevent, later, a growing over it of the transplanted flap and to avoid the checking of the movements of the upper lid.

The advantages of the method lie in the fact that all the available anatomical and pathological relations are taken into consideration:

1. The transplanted flap is attached to the fornix as a natural point.

2. From this it follows that the flap is capable of following all the changes of position of the lid with respect to the eyeball.

3. The transplanted flap is, through this fixation, better adapted to its surroundings and to its base, and therefore more readily becomes attached.

4. The expansion of the rectus exercises a constant traction on the new-formed fornix in the direction of the depth of the orbit, and thus prevents the shrinking that often occurs later.

SCLEROTOMY AND IRIDECTOMY COMBINED.

De Wecker (*Annales d'Oculistique*, November, 1900) recommends that an anterior sclerotomy be performed before an iridectomy is done for the relief of glaucoma. His reasons are:

1. It removes from iridectomy the dangers which it undoubtedly presents in a certain number of cases of recent glaucoma, as well as that in which the disease has progressed greatly, and in which the limit of the field of vision threatens the fixation.

2. A long experience has proven to the author that sclerotomy executed alone not only diminishes the danger of an iridectomy performed at a later date, but also enlarges the visual field; constantly pushing back its internal limit from the point of fixation.

3. In all cases in which one is tempted to perform the sclerotomy alone, the addition of an iridectomy will have the advantage of giving the greatest curative action of operative

type, and will prevent the operator from having to attribute to himself the failure to obtain from sclerotomy that which an iridectomy or a combination of the two operations might have given to the patient.

4. Finally, when by the combination of the two operations the glaucomatous condition has been cured or arrested in its march, the surgeon may feel more tranquil as to the future of his patient, the operation having been rigorously performed; and further, if, after a certain number of years, the curative effect of this double intervention should commence to pass away, he will have nothing with which to reproach himself, as he attacks the field of previous operative procedure.

PAMPHLETS RECEIVED.

"The Study of Children," by Arthur McDonald.

"Zur Anatomie des Glaukoms in Augen von uebermormaler Afenlänge," by G. Ischreyt, M.D.

"Ueber Verfettung das Pigmentspithels in einem Glaukomatösen Aege," by G. Ischreyt, M.D.

"The Value of Formaldehyd in the Treatment of Suppurative Otitis Media," by H. O. Reik, M.D.

"Zur Pathologischen Anatomie des Secundaer Glaukoms nach Linsen-Subluxation," by G. Ischreyt, M.D.

"Removal of the Superior Maxillary Bone for Sarcoma, Involving the Cerebral and Orbital Cavities and the Antrum of Highmore," by W. B. Johnson, M.D.